

Amendments to the Claims

1. **(Currently Amended)** A method for polishing an object by using an abrading surface made of abrasive particles and a binder, said method comprising:

polishing the said object by the abrading surface while supplying a liquid not containing any abrasive particles for a determined time period; and

further polishing the said object by the abrading surface while supplying abrasive particles so as to perform additional removal of a surface material to ~~uniformly~~ remove a specific film thickness.

2. **(Currently Amended)** A method according to claim 1, wherein said further polishing to remove the additional removal of a surface material is performed with the said abrading surface by supplying a slurry containing abrasive particles to ~~said the abrading surface to be polished~~.

3. **(Currently Amended)** A method according to claim 1, wherein said ~~additional~~ further polishing to remove the removal of a surface material comprises is performed by:

polishing while concurrently dressing the said abrading surface with a liquid not containing abrasive particles to thereby generate free abrasive particles therefrom.

Claim 4 (Canceled)

5. **(Currently Amended)** A polishing apparatus for polishing a surface of an object, said polishing apparatus comprising:

a holder for holding the said object;

an abrading surface comprising abrasive particles and a binder;

a mechanism for pressing the said surface of the said object to said abrading surface while producing a sliding motion over a polishing interface;

a device for supplying a liquid not containing abrasive particles to the said polishing interface;
and

a surface material removal device for performing additional material removal by supplying abrasive particles on said abrading surface, said surface material removal device being integrally mounted in said polishing apparatus.

6. **(Currently Amended)** A polishing ~~An~~ apparatus according to claim 5, wherein said surface material removal device is a device for supplying a slurry containing abrasive particles to the said polishing interface.

7. **(Currently Amended)** A polishing ~~An~~ apparatus according to claim 5, wherein said surface material removal device is a device for dressing said abrading surface so as to release abrasive particles from said abrading surface.

8. **(Currently Amended)** A polishing ~~An~~ apparatus according to claim 5, further comprising: wherein said apparatus is provided with a

first polishing means for to perform polishing while supplying a liquid not containing abrasive particles to the said polishing interface; and

a second polishing means for to perform polishing while supplying a slurry containing abrasive particles to the said polishing interface.

Claims 9-53 (Canceled)

54. **(Currently Amended)** A method for polishing an object using an abrading surface made of abrasive particles and a binder binding the said abrasive particles, said method comprising:

dressing the said abrading surface to shape the said abrading surface by a dresser prior to a polishing process;

pressing the object against the said abrading surface; and

polishing the object by making a sliding motion between a surface of the object and the said abrading surface.

55. **(Currently Amended)** A method according to claim 54, wherein a surface roughness of the said abrading surface is less than $\pm 30\mu\text{m}$ after said dressing process.

56. **(Currently Amended)** A method according to claim 54, wherein the said abrading surface is a surface of an abrading plate, the abrading plate being ~~which is~~ shaped by pressing while in a container in during a manufacturing process of the abrading plate same.

57. **(Currently Amended)** A method according to claim 54, wherein a ratio of the said abrasive particles and a material of the binder ~~material~~ is 1:x, where x is not less than ~~0,5~~ 0.5 by volume (the binder material per 1 unit of the abrasive particles is not less than ~~0,5~~ 0.5 unit), and proportions of the said abrasive particles, the said binder, and porosity are, respectively, not less than 10%, not more than 60% and 10-40% by volume.

58. **(Original)** A method according to claim 54, wherein said dressing process is conducted under supplying water.

59. **(Currently Amended)** A method according to claim 54, wherein the said dresser comprises diamond particles.

60. **(Currently Amended)** A method according to claim 59, wherein the dresser comprises the said diamond particles ~~are~~ electro-deposited in a nickel base.

61. **(Original)** A method according to claim 54, wherein said dressing process further comprises removing residual particles from the dressed abrading surface.

62. **(Currently Amended)** A method according to claim 61, wherein said removing process comprises pressing and rotating a flat tool against the said abrading surface.

63. **(Currently Amended)** A method according to claim 61, wherein the said flat tool comprises a blanket wafer, a quartz glass substrate, or a ceramic substrate.

64. **(Currently Amended)** A method according to claim 61, wherein said removing process comprises washing the said abrading surface using a brush while flowing a liquid thereon.

65. **(Currently Amended)** A method according to claim 61, wherein said removing process comprises applying a pressured fluid on the said abrading surface.

66. **(Currently Amended)** A method according to claim 65, wherein a said pressure of the pressured fluid is less than 5 kgPa.

67. **(Currently Amended)** A method according to claim 61, wherein said removing process comprises applying an ultrasonic fluid on the said abrading surface.

68. **(Currently Amended)** A method for polishing an object using an abrading surface made of abrasive particles and a binder binding the said abrasive particles, said method comprising:

dressing the said abrading surface by a dresser prior to a polishing process until a surface roughness of the said abrading surface is less than $\pm 30\mu\text{m}$; and

pressing the object against the said abrading surface and polishing the object by making a sliding motion between a surface of the object and the said abrading surface.

69. **(Currently Amended)** A method according to claim 68, wherein the said dresser comprises a diamond dresser having which size of diamond particles of is #100 size.

70. **(Currently Amended)** A method according to claim 68, wherein said dressing process is conducted by pressing the said dresser with a pressure of less than 100g/cm^2 .

71. **(Currently Amended)** A method for polishing an object using an abrading surface made of abrasive particles and a binder binding the said abrasive particles, said method comprising:

dressing the said abrading surface by a diamond dresser for moderately roughening the abrading surface;

pressing the object against the said abrading surface and polishing the object by making a sliding motion between a surface of the object and the said abrading surface, wherein a pressure between the said abrading surface and the said dresser is less than 100g/cm².

72. **(Currently Amended)** A method according to claim 71, wherein the said pressure of said dressing process is less than 50g/cm².

73. **(Currently Amended)** A method according to claim 71, wherein the said dresser comprises a diamond dresser having which size of diamond particles of is #200 size.

74. **(Currently Amended)** A method for polishing an object using an abrading surface made of abrasive particles and a binder binding the said abrasive particles, said method comprising:

polishing ~~a the~~ surface of the object by pressing the object against the said abrading surface and making a sliding motion between the a surface of the object and the said abrading surface; and

dressing the said abrading surface by a dresser for roughening the abrading surface during said polishing process to generate free abrasive particles from the said abrading surface.

75. **(Original)** A method according to claim 74, wherein said polishing process comprises a first stage polishing which is conducted without dressing, and a second stage polishing which is conducted with dressing.

76. **(Currently Amended)** A method according to claim 74, wherein said polishing process operation is conducted while supplying a liquid not containing abrasive particles.

Claim 77 (Canceled)

78. **(Currently Amended)** A method for polishing an object having a raised and depressed pattern thereon, said method comprising:

pressing the object against an abrading surface comprising abrasive particles and a binder binding the said abrasive particles;

polishing a the surface of the object by making a sliding motion between the a surface of the object and the said abrading surface; and

supplying a liquid including a surface activator during the said sliding motion.

Claims 79-81 (Canceled)

82. **(Currently Amended)** An apparatus for polishing an object using an abrading surface made of abrasive particles and a binder binding the said abrasive particles, said apparatus comprising:

a holder for holding the object;

a mechanism for pressing the object against the said abrading surface and making a sliding motion between a surface of the object and the said abrading surface; and

a dresser for dressing the said abrading surface prior to a polishing process to shape the said abrading surface.

83. **(Currently Amended)** An apparatus according to claim 82, wherein a surface roughness of the said abrading surface is less than $\pm 30\mu\text{m}$ after the said dressing process.

84. **(Currently Amended)** An apparatus according to claim 82, wherein the said abrading surface is a surface of an abrading plate, the abrading plate being ~~which is~~ shaped by pressing while in a container in during a manufacturing process of the abrading plate ~~same~~.

85. **(Currently Amended)** An apparatus according to claim 84, wherein a ratio of the said abrasive particles and the binder material is 1:x, where x is not less than ~~0,5~~ 0.5 by volume (the binder material per 1 unit of the abrasive particles is not less than ~~0,5~~ 0.5 unit), and proportions of the said

abrasive particles, the said binder, and porosity are, respectively, not less than 10%, not more than 60% and 10-40% by volume.

86. **(Currently Amended)** An apparatus according to claim 82, further comprising a device for supplying water during the said dressing process.

87. **(Original)** An apparatus according to claim 82, wherein said dresser comprises diamond particles.

88. **(Currently Amended)** An apparatus according to claim 87, wherein said dresser comprises said diamond particles ~~are~~ electro-deposited in a nickel base.

89. **(Original)** An apparatus according to claim 82, further comprising a residual particles removing device for removing residual particles from the dressed abrading surface.

90. **(Currently Amended)** An apparatus according to claim 89, wherein said residual particles removing device comprises a flat tool for pressing and rotating against the said abrading surface.

91. **(Original)** An apparatus according to claim 90, wherein said flat tool comprises a blanket wafer, a quartz glass substrate, or a ceramic substrate.

92. **(Currently Amended)** An apparatus according to claim 89, wherein said residual particles removing device comprises a brush for washing the said abrading surface while flowing a liquid thereon.

93. **(Currently Amended)** An apparatus according to claim 89, wherein said residual particles removing device comprises a pressured fluid ejector for applying a pressured fluid on the said abrading surface.

94. **(Currently Amended)** An apparatus according to claim 93, wherein a said pressure of the pressurized fluid is less than 5 kgPa.

95. **(Currently Amended)** An apparatus according to claim 89, wherein said residual particle removing device comprises an ultrasonic source for applying an ultrasonic energy to a fluid on the said abrading surface.

96. **(Currently Amended)** An apparatus for polishing an object using an abrading surface made of abrasive particles and a binder binding the said abrasive particles, said apparatus comprising:
a holder for holding the object;
a mechanism for pressing the object against the said abrading surface and making a sliding motion between a surface of the object and the said abrading surface; and
a diamond dresser for dressing and roughening the said abrading surface;,
wherein a pressure applied by said dresser against the said abrading surface is less than 100g/cm².

97. **(Currently Amended)** An apparatus according to claim 96, wherein the said pressure of said dresser is less than 50g/cm².

98. **(Currently Amended)** An apparatus according to claim 97, wherein said dresser comprises a diamond dresser having which size of diamond particles of particle is #200 size.

99. **(Currently Amended)** An apparatus for polishing an object using an abrading surface made of abrasive particles and a binder binding the said abrasive particles, said apparatus comprising:
a holder for holding the object;
a mechanism for polishing a the surface of the object by pressing the object against the said abrading surface and making a sliding motion between a surface of the object and the said abrading surface;

a dresser for dressing the said abrading surface for roughening the abrading surface by a dresser during the said polishing process to generate free abrasive particles from the said abrading surface.

100. **(Currently Amended)** An apparatus according to claim 99, further comprising a controller for sending a signal for switching between a first stage polishing which is conducted without dressing, and a second stage polishing which is conducted with dressing.

101. **(Currently Amended)** An apparatus according to claim 99, wherein the said polishing operation process is conducted while supplying a liquid not containing abrasive particles.

102. **(Currently Amended)** A method according to claim 1, wherein the said object is a semiconductor wafer having a raised and depressed pattern thereon.

103. **(Currently Amended)** A method according to claim 1, wherein the said object is held by a same holder during said polishing and said further polishing.

104. **(Original)** An apparatus according to claim 5, wherein said abrading surface comprises a surface of an abrading plate.

105. **(New)** A method according to claim 74, wherein the dresser comprises a diamond dresser.

106. **(New)** An apparatus according to claim 99, wherein the dresser comprises a diamond dresser.